REMARKS

In the Office Action mailed December 6, 2001, the Examiner rejected claims 1-18 of the present invention. The Examiner stated that Applicants' arguments with respect to claims 1-18 have been considered, but are moot in view of the new grounds of rejection. The Examiner rejected claims 1-7, 9-12 and 14-18 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,208,070 B1 to Sugimoto ("Sugimoto"). The Examiner also rejected claims 8 and 13 under 35 U.S.C. §103(a) as being unpatentable over Sugimoto, as applied to claim 1. In addition, the Examiner objected to Figure 2.

In view of the remarks set forth herein, Applicants respectfully submit that all pending claims, claims 1-18, are in condition for allowance.

A. Objection to Drawings

Applicants note that formal drawings submitted in the application subsequent to allowance and will address the present requirement via drawing amendment at that time.

B. Rejection Under §102(e)

Claims 1-7, 9-12 and 14-18 were rejected by the Examiner under 35 U.S.C. §102(e) as being anticipated by Sugimoto. The Examiner stated that Sugimoto discloses a ceramic metal halide lamp comprising an envelope, an elongated interior chamber disposed within the envelope having a lamp body (discharge tube 1) located therein (lines 46-48 of column 3), at least one electrode lead (17a of Figure 3) partially housed by the interior chamber (11 of Figure 2) and a single continuous elongated mandrel (16a and 19a) forming a shaft of the electrode lead (lines 23-26 of column 4, and 61-65 of column 4, and line 3 of column 5).

Applicants submit that the presently claimed subject matter is patentably distinguishable from Sugimoto and further that the claimed subject matter is not anticipated by Sugimoto. Claim 1 of the presently claimed subject matter specifically calls for a ceramic metal halide lamp that comprises an envelope, an elongated interior chamber disposed within the envelope having a lamp body located therein, at least one electrode lead partially housed by the interior chamber, and a single continuous elongated mandrel forming a shaft of the electrode lead

Furthermore, independent claims 9 and 14 also specifically call for at least one electrode lead having a single continuous elongated mandrel.

The Examiner contends that the single continuous elongated mandrel claimed in the present invention is anticipated by structures 16a and 19a of Fig. 2 of Sugimoto. Applicants submit, however, that Sugimoto is distinguishable from the presently claimed subject matter, as stated in Sugimoto at column 4, lines 61-65:

> A tungsten wire of 0.25 mm sectional diameter wound five turns around the electrode rods 19a and 19b was used for the electrode coils 15a and 15b. A tungsten rod with 0.5 mm sectional diameter was used for the feed portions 16a and 16b.

Thus, the structures that are cited by the Examiner, namely, 16a and 19a, are of different sectional diameters. Furthermore, Sugimoto does not contemplate that 16a and 19a are a single continuous mandrel, as stated in Sugimoto at column 5, lines 9-12:

> The molybdenum wire coil that is wrapped around the feed portion 16a and the electrode rod 19a provides a high temperature resistance and a low reactivity with the emission metallic compound (halide).

Sugimoto refers to a wire coil as wrapping around a "feed portion" and the "electrode rod" and does not refer to them being equivalent structures. In fact, claim 1 of Sugimoto specifies that the "second cylindrical portions with an outer diameter that is smaller than an inner diameter of said first cylindrical portion." Further, as illustrated in the figures of Sugimoto, a single continuous mandrel is not shown; and in fact, Sugimoto clearly teaches the use of two separate pieces for the mandrel as is denoted by the line separating 16a and 19a in Figures 2, 3 and 9 (denoted by numbers 26a and 29a). Clearly, if Sugimoto had contemplated a single continuous mandrel, there would be some suggestion of such in the specification or in the drawings. However, there is no suggestion nor disclosure of using a single continuous mandrel anywhere in Sugimoto. As such, it cannot be said that the mandrel as disclosed in Sugimoto constitutes a single, continuous elongated mandrel as is claimed by the present invention.

Therefore, Applicants respectfully submit that Sugimoto cannot anticipate the presently claimed subject matter. Sugimoto does not disclose each

and every element that is claimed in the present application. In particular, with respect to claims 1-7, 9-12 and 14-18, Sugimoto does not disclose nor suggest the use of a single continuous elongated mandrel. Rather, Sugimoto teaches that the mandrel constitutes separate cylindrical pieces that are of varying diameters and possibly materials.

As such, Applicants respectfully request that the Examiner remove all rejections of claims 1-7, 9-12 and 14-18 over Sugimoto under 35 U.S.C. §102(e) and allow the claims as written.

C. Rejection Under §103(a)

The Examiner also rejected claims 8 and 13 under 35 U.S.C. §103(a) as being unpatentable over Sugimoto as applied to claim 1. The Examiner argued that Sugimoto met all of the claimed limitations of claims 8 and 13 except for the limitation of the outside diameter of the overwind component being greater than the outside diameter of the electrode tip coil. The Examiner then argued that the limitation of having an outside diameter of the overwind portion greater than the outside diameter of the electrode tip does not solve any of the stated problems or yield any unexpected result that is not within the scope of the teachings applied. The Examiner then concluded that such limitation would be considered to be a matter of choice, which a person of ordinary skill in the art would have found obvious.

Applicants submit that claims 8 and 13 are patentable over Sugimoto as applied to claim 1 above. Claim 8 of the present invention of the present application specifically calls for a ceramic metal halide lamp wherein the electrode lead includes an electrode tip coil disposed at one of the mandrel and an overwind component received over the other end of the mandrel, where the outside diameter of the overwind component is greater than the outside diameter of the electrode tip coil. Claim 13 of the present application specifically calls for a ceramic metal halide lamp with a mandrel that is formed from a single piece of tungsten wire where the outside diameter of the overwind component is greater than the outside diameter of the electrode tip coil.

The Examiner argued that the limitation of having an outside diameter of the overwind portion greater than the outside diameter of the electrode tip coil is not within the scope of the teachings applied. However, Applicants submit that the

present application at page 7, lines 21-28 discusses the applicability of the limitation. As stated, the present application states:

> It will be appreciated that the invention lends itself to different size wires being wound about the mandrel, particularly where dissimilar materials are used for the electrode tip and the overwind component. For example, the diameter of the molybdenum wire forming the overwind component is preferably larger than the diameter of the tungsten wire forming the electrode tip.

Applicants submit that the limitation is within the scope of the teachings applied and that the presently claimed subject matter is important when using different sized wires that are being wound about the mandrel, especially where dissimilar materials are used for the electrode tip and the overwind component. The use of an overwind component diameter that is larger than the electrode tip diameter is important to achieve one of the goals of the present invention, providing for a more stable mandrel. As stated in the present application on page 3, at lines 30-34:

> Another advantage of the invention resides in the improved concentricity of the electrode tip, which reduces arctube wall corrosion, resulting in increased lamp life and better performance.

As such, it is clear from the specification that having an outside diameter of the overwind portion that is greater than the outside diameter of the electrode tip coil would result in improved concentricity of the electrode tip which, as stated in the application, would reduce arctube wall corrosion and result in increased lamp life and better performance. As such, it cannot be said that the claim limitation does not solve any stated problem or yield any unexpected result. Furthermore, even if the claim limitation does not solve any stated problem, the Examiner is not relieved of a responsibility to provide a teaching for that limitation in the prior art. Applicants respectfully request the Examiner demonstrate such a teaching rather than rely on an unsupported allegation of choice. In addition, Figure 2 of Stoffels is not remotely dispositive of electrode tip and overwind diameters. Therefore, Applicants submit that the presently claimed subject matter of claims 8 and 13 is not

obvious in view of Sugimoto and is not a matter of choice which a person of ordinary skill in the art would find obvious.

As such, Applicants respectfully request that the Examiner remove all rejections under 35 U.S.C. §103(a) of claims 8 and 13 and allow the claims as written.

D. Conclusion

In view of the above remarks, Applicants respectfully submit that the rejections set forth in the Office Action of December 6, 2001 have been overcome. Accordingly, Applicants submit that claims 1-18 are in condition for allowance. Withdrawal of the rejections and early notification of allowability are earnestly solicited. Should any issues remain, the Examiner is encouraged to contact the undersigned to resolve any such issues.

Respectfully submitted,

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